



# Synthesis Report of EGRS I and EGRS II







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**NOTE:** The Early Grade Reading Studies (EGRS) are a related series of large scale evaluations being led by the South African department of Basic Education (DBE) in collaboration with academics at various universities and national and international donor organisations.

This report is a synthesis of the findings from EGRS I and EGRS II. More detailed reports from the series are available **here**.



basic education planning, monitoring and evaluation





#### education

Lefapha la Thuto la Bokone Bophirima Noord-Wes Departement van Onderwys North West Department of Education NORTH WEST PROVINCE

























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#### **Acronyms and Abbreviations**

CAPS	National Curriculum and Assessment Policy Statement
DBE	Department of Basic Education
EFAL	English as First Additional Language
EGRS	Early Grade Reading Study
EGRS I	First Early Grade Reading Study
EGRS II	Second Early Grade Reading Study
HL	Home Language
ICT	Information and Communications Technology
LTSM	Learning and Teaching Support Material
NCS	National Curriculum Statement
ORF	Oral Reading Fluency
PCA	Principal Component Analysis
RCT	Randomised Control Trial
wcpm	words correct per minute



In 2012 the first proposals for an Early Grade Reading Study (EGRS) were drafted within the Department of Basic Education (DBE). There were three main reasons for this proposal:

 mounting evidence that
 most South African children were not learning to read with sufficient comprehension by grade 5;  research showed positive
 early learning outcomes were strongly predictive of reaching grade 12 and performing well in the matric examination; and a dearth of evidence about how to improve reading outcomes at scale.

Ten years later there have been several iterations of the Early Grade Reading Study (EGRS), led by the DBE, but with many partners. The work has contributed to a growing consensus around the importance of improving South Africa's reading outcomes, and has generated an evidence base around what sorts of interventions impact on reading outcomes and how the change process works. It is important to note that although this project has now implemented support programmes in about 450 schools, this was done to evaluate their impact in order to inform wider scale implementation by national and provincial education departments.

What did the rigorous scientific testing of EGRS over the last 10 years reveal? If South Africa is serious about improving its literacy levels, it should invest in teachers. This is because **one-on-one coaching for teachers has proved to be the most effective reading intervention**. A home language intervention in the Foundation Phase is recommended, as it will have a positive impact on home language and English as First Additional language (EFAL).

### The Importance of Robust Evaluation: a tough first lesson

The first study in the series was an impact evaluation of a Reading Catch-Up Programme (RCUP), which had initially been implemented as part of the Gauteng Primary Literacy and Mathematics Strategy (GPLMS). This programme aimed to help Grade 4 learners, whose home language is not English, catch up to a level adequate to cope with the transition into English as the language of instruction in Grade 4. The programme provided lesson plans, additional reading materials and on-site coaching to teachers over a period of 11 weeks.

An evaluation conducted in Gauteng found that children scored significantly higher in an English test after being part of the programme compared to before. However, when we evaluated the same programme in 2014 using a formal impact evaluation methodology known as a Randomised Control Trial (RCT), we found



that the control group's test scores improved by about the same amount as the intervention group over the period of the intervention. **This demonstrated the importance of a robust impact evaluation methodology** for making the right conclusions about impact (#methodsmatter), but also that this catch up programme did not have the intended impact. Only a small percentage of children with initially better reading proficiency benefited at all from the programme. These findings pointed to the need for a longer intervention period to allow new classroom practices to become established, and to address the more foundational skill of learning to read in the language children already understand. This directly informed the design of the first fully fledged Early Grade Reading Study (EGRS I).



#### **DBE Vision**

Our vision is of a South Africa in which all our people will have access to lifelong learning, education and training opportunities, which will, in turn, contribute towards improving the quality of life and building a peaceful, prosperous and democratic South Africa.



#### **DBE** Mission

Our mission is to provide leadership in the establishment of a South African education system for the 21st century.



#### **EGRS** Mission

EGRS aim to realise the Department of Basic Education's vision and mission by focussing on Goal 1 (increase the number of learners in Grade 3 who, by the end of the year, have mastered the minimum language and numeracy competencies for Grade 3) and Goal 16 (improve the professionalism, teaching skills, subject knowledge and computer literacy of teachers throughout their entire careers)<sup>1</sup>.

1 "Action Plan to 2019: Towards the realisation of Schooling 2030" Available here: www.education.gov.za



### The South African Department of Basic Education (DBE) prioritises literacy and since 2015 has been conducting rigorous scientific testing to establish which interventions work, how they work and why they work.

The Early Grade Reading Studies (EGRS) aim to build evidence about what works to improve the learning and teaching of early grade reading in South African schools. The project uses formal impact evaluation methodologies (randomised experiments) and makes extensive use of mixed methods (classroom observation and detailed case studies) so as to provide both a quantitative estimate of what the impact of each intervention is on home language and English as First Additional Language (EFAL).

The first Early Grade Reading Study (EGRS I) was conducted in the North West Province<sup>2</sup> and evaluated three Setswana Home Language interventions aimed at improving reading in the early grades: a teacher training intervention, an on-site training and coaching intervention, and a parental involvement intervention.

The table below provides details on the design:

#### Table 1: EGRS I Design

A structured learning programme & centralised training	A structured learning programme & specialist on-site coaching	Parent intervention	Control Group	
50 Schools	50 Schools	50 Schools	80 Schools	
Teachers were provided with lesson plans aligned to the National Curriculum (NCS & CAPS), additional quality reading materials and two-day training at centralised workshops twice a year.	Teachers were provided with the same lesson plans and additional quality reading materials, but professional support took the form of monthly on-site coaching and small cluster training sessions.	Parents and caregivers invited to weekly workshops focused on the importance of learning to read and on equipping parents/ caregivers to become more involved in their child's literacy development.	Schooling as normal: all the usual policy and support.	

The three interventions were implemented with the teachers of a cohort of learners in Grade 1 in 2015 and the

<sup>2</sup> Dr Kenneth Kaunda and Ngaka Modiri Molema districts.

teachers of the same cohort of learners in Grade 2 in 2016. The first two interventions were extended to the teachers of the same learners in Grade 3 in 2017. Data collection occurred at the start of Grade 1 (Wave 1), end of Grade 1 (Wave 2), end of Grade 2 (Wave 3) and end of Grade 4 (Wave 4 in 2018).

To further evaluate the sustainability of the EGRS, a fifth wave of data was collected in 2021. The purpose of this wave was to determine whether the results from the original cohort of learners who received the interventions would be sustained into Grade 7 in 2021, more than three years after they had the benefit of being taught by teachers who had received the EGRS intervention. The timeline below summarises the grades and data collections.

#### EGRS I Wave 1-5

Grade 1 teachers	Grade 2 teachers	Grade 3 teachers	No intervention	No intervention	
2015	2016	2017	2018	2020	
Start of Grade 1 (Wave 1) End of Grade 1 (Wave 2)	End of Grade 2 (Wave 3)	No data collection	End of Grade 3 and Grade 4 (Wave4)	End of Grade 7 (Wave5)	

## **3. KEY FINDINGS OF EGRS I**

- The two teacher support interventions both had positive impacts on reading outcomes, with the largest impact observed in schools that received on-site coaching. Children in this group learned an additional 40% of a normal year's worth of schooling. This points to the teaching of home language in Foundation Phase classrooms as being the key site of reading acquisition, and therefore the key site where reading interventions are needed.
- There is evidence of sustained impact of the 'training' and 'training and coaching' interventions, for Grade 4 learners one year after the end of the intervention. These learners were found to be outperforming control group learners in home language reading proficiency. The magnitude of the advantage held by learners in the coaching group in 2018 was similar to that observed after two years of intervention (in 2016). These learners remained 40% of a normal year of schooling ahead of control group schools.
- In addition to assessing the learners directly receiving the intervention who were now in Grade 4, in 2018 we also assessed Grade 3 learners. They were taught by teachers in the year after they had received coaching and training support. The size of the impact was about half as large as the impact on the directly affected cohort of children, suggesting some drop off in implementation by teachers after the intervention period. It might be that some "light-touch" follow-up support or monitoring in schools in the years following an intervention could be a cost-effective way to sustain implementation.
- In Grade 2 and Grade 4 there was a positive spill-over effect onto English reading proficiency, even though this was not the outcome directly targeted by the intervention. This finding is in line with linguistic theory, which predicts that learning to read effectively in home language helps children transition to a second language.
- In the latest sustainability data collection at the end of Grade 7 in 2021, four years after the foundation phase Setswana interventions, we found evidence of a sustained impact from the coaching intervention on Setswana (home language) reading outcomes especially for the coaching intervention. At the end of primary school these learners were still 40% of a year of schooling ahead from the control group.
- However, the positive spill-over effect onto English reading proficiency was ultimately unsustained, the Grade 7 English results did not show the same gains as earlier data collections.
- Perhaps the most disappointing result was that the parent involvement intervention had no significant
  impact on reading outcomes. This certainly does not mean that parent involvement doesn't affect
  reading outcomes, but rather that this intervention did not succeed in shifting parent involvement
  in ways that ultimately led to improved reading. Simply getting parents to attend the weekly meetings
  regularly proved a challenge. Only about 30% of parents attended at least three meetings in a year. As with the
  RCUP evaluation, measuring the causal effects using a robust methodology highlighted the reality that not all
  well-meaning or plausible-sounding interventions will actually impact learning outcomes.
- Although parents have an important role to play in supporting education and perhaps in fostering the enjoyment of reading amongst children, they are not as well equipped as teachers to teach the systematic process of decoding text which is fundamental to learning to read. This skill is taught primarily within the eight hours a week allocated to home language literacy in grades 1 to 3. The heavy learning losses incurred due to the pandemic-related disruptions to schooling have again proven this point.



Although the on-site coaching model has delivered uniquely robust evidence of sustained impacts on reading outcomes, there are questions about the potential for this model to be implemented at scale. Aside from the financial cost of employing coaches, it is not clear whether there are enough suitable people with Foundation Phase teaching experience across the relevant languages to cover a large percentage of schools.

The second Early Grade Reading Study (EGRS II) was conducted in Mpumalanga from 2017 – 2020 and focussed on strengthening the teaching of English as a First Additional Language (EFAL) in the Foundation Phase. The study evaluated two different delivery models – the first being the traditional model of paper-based lesson plans and regular in-person coaching visits. This is the same successful on-site coaching intervention from EGRS I. The second intervention explored the role that technology can play through the provision of the lesson plans on tablets and regular support to the teachers via a 'virtual coach'. The tablets provided were preloaded with the same lesson plans as in the first intervention, but also included audio and video clips to help teachers better understand the phonic sounds and the teaching methodologies. The virtual coach was a specialist reading coach, similar to the coaches doing the in-person visits, but communicated with the teachers regularly via WhatsApp and phone calls.

In contrast to EGRS I, the EGRS II interventions aimed to improve learning in English as a First Additional Language (EFAL) in grades 1 to 3. The table below provides the design of the EGRS II.

	Intervention 1 A structured learning programme and specialist on-site coaching	Intervention 2 A structured learning programme and specialist virtual coaching	Control group			
Provision of lesson plans and LTSM	Teachers provided with paper- based lesson plans in line with the curriculum. Paper-based additional integrated quality LTSM.	Teachers provided with the same lesson plans electronically on an application on a tablet. Paper-based additional integrated quality LTSM. Additional tablet- based resources including videos, sound clips and photos of example writing.	Schooling as normal: all the usual policy and support.			
Provision of LTSM	<ul> <li>Paper-based:</li> <li>Big Books</li> <li>Posters</li> <li>Flashcards</li> <li>Writing frames</li> </ul>	Paper-based: • Big Books • Posters • Flashcards • Writing frames				
Coaching	Coach visits the teacher in her classroom. Once every three weeks.	Coach contacts the teacher via telephone calls and instant messaging (WhatsApp). Once every two weeks.				
Training	Initial training: 2-day block training Quarterly training: 1 day at the start of each term. Needs-based training: As required.	Initial training: 3-day block training Quarterly training: 1 day at the start of each term. Needs-based training: Bi-weekly competitions.				
Core methodologies	Paper-based instructional manual.	Application-based instructions, includes videos, sound clips and photos of example writing.				

#### Table 2: EGRS II Design

The learners who were assessed as part of the study were tracked from the start of Grade 1 through to Grade 4. (with the final assessment evaluating impact one year after the intervention ended). The timeline below provides details on when the data was collected.

#### EGRS II Wave 1-5

Intervention	Grade 1	Grade 2	Grade 3	No	
	teachers	teachers	teachers	intervention	
	2017	2018	2019	2020	
Data collection	Start of Grade 1 (Wave 1) End of Grade 1 (Wave 2)	End of Grade 2 (Wave 3)	End of Grade 4 (Wave4)	End of Grade 4 (Wave 5)	



### **5. KEY FINDINGS OF EGRS II**

- Similar to what was seen in the first Early Grade Reading Study in the North West province, the EGRS II results show that the on-site coaching intervention had a significant positive effect on reading outcomes.
- A year after the learners were exposed to the on-site coaching intervention, they still had a positive and significant advantage over their control group peers in the ORF reading comprehension, the listening comprehension, as well as in the productive and receptive English vocabulary tasks.
- At the end of Grade 3, the impacts of the virtual coaching intervention were already very small and one year after the intervention concluded, there is no evidence of a sustained impact of the virtual coaching intervention. Analysis of tablet usage data and lesson observations suggest that the technology itself was not a barrier to implementation, but rather that the virtual coach was less able to monitor, model and correct the more difficult teaching practices.
- Given that the impacts of the virtual coaching intervention were not sustained, the on-site coaching intervention is the only intervention that showed effectiveness one year after implementation.
- Another important finding from EGRS II is that the children whose EFAL proficiency improved as a
  result of the interventions did not experience any positive spill-over benefits into their home language
  reading outcomes. This is in contrast to the findings of each EGRS I where the home language intervention
  also impacted positively on English proficiency. This highlights the strategic importance of prioritising support
  interventions to home language reading in the Foundation Phase, since this is the key space where children
  learn to read.
- It is not possible to draw any strong conclusions on teacher sustainability, given the complexity (due to COVID-19) of measuring sustained teacher practices during 2020. The evidence on the sustained accessibility and use of the learning and teaching resources provided is, however, encouraging.

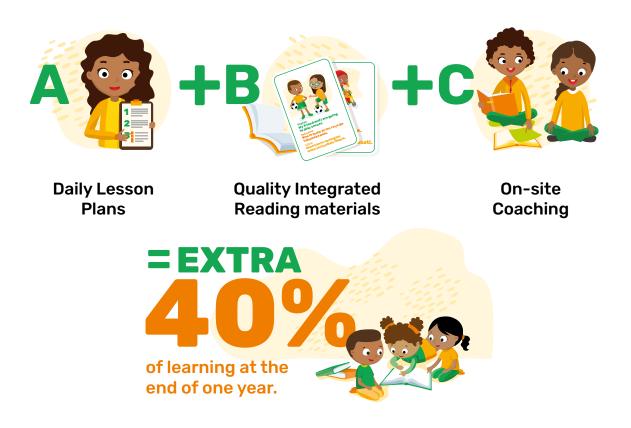
### 6. TRIPLE COCKTAIL' LEADS TO IMPROVED TEACHING AND LEARNING

Why did teacher support interventions lead to improved teaching and learning? The answer lies in the change model (theory of change) embedded in these two interventions. Three core components comprise the basic design, sometimes referred to as a '**Triple Cocktail**':

A) Daily lesson plans hold the entire programme together and create a daily prompt to enact the instructional methods and contents intended in the programme.

**B**) High quality additional reading materials including graded readers, flash cards, posters, big books and alphabet friezes, are provided through the programme, and these are integrated into the lesson plans to ensure that they are in fact used appropriately within a coherent lesson.

**C**) Professional support (whether training workshops or coaching) is provided and this targets the routines, methods and content in the lesson plans. In the coaching intervention teachers receive an additional prompt to implement the learning programme and to improve their practice, since coaches are there to observe what is happening in the classroom and to provide targeted support to the teacher. Although some people have concerns that daily lesson plans might de-skill teachers, the lesson observations across 60 schools as well as detailed case studies actually demonstrated that the structured learning interventions expanded the repertoire of instructional methods used by teachers. Certain CAPS-prescribed activities that are critical for creating individualised opportunities for learning, such as Group Guided Reading, virtually never happened in control schools, but were observed in most EGRS classrooms.



### 7. SUSTAINED IMPACTS OF COACHING INTERVENTION

For early learning interventions to be most cost-effective there are two types of sustainability that need to be in place:

- Firstly, it is important that teachers continue to implement improved teaching practices after the intervention period ends. This will ensure that future cohorts of children taught by the same teachers also benefit from the intervention.
- Secondly, it is important that the improved learning outcomes of children in the Foundation Phase translates into persistent benefits for those children throughout their schooling career leading to better eventual educational outcomes. We conducted follow-up evaluations one year after the interventions stopped (2018) and again four years after the interventions stopped (2021) to assess whether the impacts were sustained in these ways.

The 2018 data collection (one year after the interventions concluded) revealed that Grade 3 children taught by teachers in the year after they had received coaching and training support also were positively impacted, relative to their counterparts in the control group of schools. The size of the impact was about half as large as the impact on the directly affected cohort of children, suggesting some drop off in implementation by teachers after the intervention period. It might be that some "light-touch" follow-up support or monitoring in schools in the years following an intervention could be a cost-effective way to sustain implementation.

It was also encouraging to note that the children who initially benefited from both the training and the coaching interventions, most of whom were now in Grade 4, were still performing better than their counterparts in the control group one year later. To further evaluate the sustainability of the EGRS, a fifth wave of data was collected in 2021. The purpose of this wave was to determine whether the results from the original cohort of learners who received the interventions would be sustained into Grade 7 in 2021, more than three years after they had the benefit of being taught by teachers who had received the EGRS. The results show evidence of a sustained impact from the coaching intervention on Setswana (home language) reading outcomes. Despite these exciting results for Setswana, there were ultimately no long-term intervention crossover effects on EFAL outcomes.



### 8. IS HOD-LED COACHING VIABLE?

The big question is whether alternative ways of providing professional support to teachers can create the same kind of change in teaching practice and learning outcomes as coaching, but at a lower financial cost. One possibility is that district-based subject/curriculum advisors could fulfil the role of a coach. An immediate obstacle to this is the unfavourable ratio of subject advisors to schools and teachers. A recent report<sup>3</sup> on the provision of subject advisors across the country, showed that in many districts there are over 100 schools per Foundation Phase subject advisor.

Nearly half of the Grade 3 teachers interviewed in the 2017 DBE School Monitoring Survey said that they had not received any visits from a subject/curriculum advisor that year. Only 35% had received at least two visits. There may be slightly more scope for internal support from Foundation Phase Heads of Department (HODs). The DBE is currently conducting an impact evaluation of an HOD-led coaching intervention in the North West Province. By early 2024, this evaluation should provide an indication of whether HOD-led coaching has the potential to be a cost-effective alternative to on-site coaching.

3 "National Education Collaboration Trust (202). Subject Advisor Profiling Study South Africa". Available from NECT upon request.

### **9. HOW MUCH WOULD IT COST TO SCALE UP THE EGRS MODEL?**

The evidence on what works to improve reading presents an uncomfortable reality that has to be confronted if we are to be serious about improving reading in South Africa: **Even those few interventions that have demonstrated a measurable positive impact on reading outcomes have modest effect sizes relative to the size of the learning inequalities across the system; yet the learning and teaching support material (LTSM) and professional support they provide are regarded by many as unaffordable**. It seems as if there might be an unattainable sweet spot where interventions have a large enough impact but at an acceptable cost.

A 2020 finance review<sup>4</sup> conducted as part of the EGRS Improvement Plan provided detailed cost estimates for implementing the EGRS combination of lesson plans, up-front teacher training, additional LTSM and different types of coaching (external coaches, internal HOD coaching, or a hybrid model of external coaches supporting HODs to coach). This report also reviewed estimates of government spending on Foundation Phase LTSM and professional development activities and made recommendations on possible sources of funding to cover a scale up of these EGRS programmatic components.

A costing tool was also developed so that planners in national and provincial departments can adjust the parameters in order to budget for various scenarios. For example, **the total national cost to roll out the hybrid model was estimated to be R2.2 billion over a five-year period**. Whether this is too expensive is ultimately a matter of prioritisation. It is certainly a lot compared to existing interventions focused on reading. However, it is perhaps small in comparison to what is spent on the National School Nutrition Programme (R25 billion over the next three years) or to the President's Youth Employment Initiative – in basic education more than 500 000 young people were employed as "General School Assistants" or "Education Assistants" between December 2020 and March 2022 at a total cost of approximately R13 billion.



4 "DNA Economics (2020) Analysis of the financial implication of scaling an early grade reading programme. Available from the DBE on request

### **10. RESEARCH AND POLICY: LESSONS FROM 10 YEARS OF THE EGRS**

The EGRS is an interesting case study for thinking about the nexus between research and policy since it was led by researchers within government. Moreover, the type of evidence generated through this project went beyond mere diagnostic analysis and presented measurable impacts of alternative implementation programmes using a rigorous impact evaluation methodology, complemented by substantial qualitative research. If ever there was an opportunity for research to influence policy this was it. Yet the impact of this research on the sector has not been a straightforward process of immediately scaling up the most effective programme. This doesn't mean that EGRS had no influence or that we should be overly pessimistic about the extent to which evidence informs policy. It has been encouraging to see how certain key elements of the EGRS programmes have influenced the models being implemented within specific DBE programmes, and by organisations like the National Education Collaboration Trust (NECT) and literacy NGOs. The project has also led to a number of interesting spin-offs and lessons which have had unforeseen benefits within the sector.

The reality is that the education sector is complex with many stakeholders, levels of government and processes that require substantial collaboration and coordination before large changes in implementation can occur. In this environment, it is more realistic to acknowledge that research influences thinking and the discourse within the sector in ways that are hard to measure. Over the last few years there has been an increasing recognition across the sector of the importance of reading as a key developmental priority in South Africa. This is reflected in political commitments, such as the President's annual State of the Nation Address (SONA) and in government plans such as the latest Medium Term Strategic Framework (MTSF). This was not always the case. Political commitments and manifestos during the late 1990s and early 2000s focused largely on adult literacy. Only in recent years has the focus shifted towards Early Childhood Development and learning outcomes such as reading in particular.



'The department's early grade reading studies have demonstrated the impact that a dedicated package of reading resources, expert reading coaches and lesson plans can have on reading outcomes. We will be substantially expanding the availability of these early reading resources across the foundation phase of schooling.'

Cyril Ramaphosa, President of South Africa, State of the Nation Address 2019

The EGRS project has led to various valuable follow-up research projects and innovations. The data collected through EGRS has been used to develop reading benchmarks across a number of South African languages. This work has contributed to a new understanding of the structure of these different languages and provides information to teachers on levels of fluency in early decoding skills that indicate whether children are on track to require satisfactory reading comprehension by the end of the Foundation Phase. The data collected through EGRS was also used to measure the impact of the COVID-19 pandemic on learning. By comparing grade-specific reading levels before and during the pandemic using identical tests, it was possible to measure the causal impact of the disruptions to schooling on reading outcomes. The results were alarming - **Grade 4 learners in 2021 were reading less proficiently than children in Grade 3 prior to the pandemic**. These results were instrumental in bringing the country's attention to this unfolding crisis and helped government build the case for keeping schools open and ending the practice of rotational time-tabling.

The project has also helped to build capacity within the sector to conduct research and to develop programmatic components such as early grade reading assessments, reading materials and training programmes to support teachers and coaches. A coaching course has been developed and accredited through the University of Johannesburg. A number of emerging researchers have had the opportunity to develop their knowledge and gain work experience within this area, and networks have been strengthened through increased collaboration between researchers, government, practitioners and literacy NGOs.



# **11. THE NEXT 10 YEARS**

The challenge now is to build on the evidence by coordinating and sustaining a programme of support to Foundation Phase teachers across the country that provides them with lesson plans, a minimum package of LTSM for teaching reading and meaningful professional support. The primary focus must be on supporting home language in the Foundation Phase. The fully-fledged on-site coaching model might not be implementable in all primary schools at the same time but could be considered by provinces on a rotational basis. The challenge is to bring about a change in the dominant reading instruction practices in South African classrooms. This requires a lot of coordination. There needs to be coordination between different levels of government and between different programme areas including curriculum, teacher development (in-service and pre-service) and those responsible for LTSM. It also requires this coordinated action to be sustained over at least five to 10 years.

Meanwhile, research and evaluation must continue to inform and support programme implementation by developing new ways to improve reading outcomes more cost effectively and by evaluating what does get implemented at scale. Although the focus may need to increasingly include other strategic areas such as primary school mathematics and the quality of ECD programmes, we must be patient in addressing the reading challenge. Even if we do see an implementation of substantial support to teachers over the next 10 years leading to significantly improved reading outcomes nationally, there will still be a long way to go before all children can read by the age of 10.

# 12. ADDITIONAL RESEARCH: IMPACT OF COVID-19

On 18 March 2020, all South African schools closed in an attempt to curb the spread of the COVID-19 virus. As international research emerged showing that learners were less likely than adults to become infected, as well as to infect others, school systematically started re-opening. However, since research on the impact of the virus was still ongoing and public perceptions of the risk of the virus were highly variable, the re-opening plans had to be very adaptable and fluid.

In 2019, the total number of teaching days for all grades totalled 199 days. With the closing of schools in 2020 and the subsequent phased reopening, between 44 and 97 days of teaching were lost for the different grades. In 2020, the Grade 4 learners in our sample officially lost 42% of the school days of a regular school year.

Over and above the number of official teaching days lost, further 'unaccounted' for learning was lost due to the social-distancing regulations. On 24 August 2020, all grades returned to school, but the social distancing regulations required learners to keep a distance of 1.5 meters between them. The large majority of South African schools do not have the floor capacity to fit all learners with the 1.5-meter requirement and were forced to implement rotational teaching to lower the learner numbers attending school at the same time.

The DBE proposed three different rotational models (bi-weekly rotation, daily rotation or platooning<sup>5</sup>) and schools could choose which of the rotational models best-suited learners in their context. Regardless of the option chosen, the implications of the rotational model in low-resourced schools or in schools with larger class sizes were that learners lost a further half of the remaining school days. Table 3 below shows estimates of the effective days of learning as a result of the phased-in approach to reopening in conjunction with the rotational approach. The Grade 4 learners in our sample therefore effectively lost 59% of their school year, assuming that learners were not absent and attended school on the days allocated to them.

Grades	Jan – 18 Mar	June	July	Aug	Sep	Oct	Νον	Total: 2020	Total: 2019	% of school days lost*
Gr 7 & 12	46	7	10	10	11	9	9	101	199	49%
Gr R, 6 & 11	46		8	10	11	9	9	91	199	54%
Gr 3 & 10	46		5	10	11	9	9	89	199	56%
Gr 1 & 2	46		3	10	11	9	9	86	199	57%
Gr 4 & 9	46			8	11	9	9	81	199	<b>59</b> %
Gr 5 & 8	46			1	11	9	9	74	199	63%

#### Table 3: Effective Days of Teaching Lost in 2020

Grades take turns using school facilities.

\*relative to 2019

### Using EGRS Data to Quantify Learning Losses<sup>6</sup>

The graphs below use the data from the various reading assessments that were conducted in the North West province to determine the learning losses that were experienced in early grade reading over 2020 and 2021. The data is from the Early Grade Reading Study (EGRS) and the subsequent Reading Support Programme that was continued in the schools that participated in the EGRS. In 2018, a group of 2,063 Grade 3 learners and a group of 3,178 Grade 4 learners were assessed in their Setswana Home Language (HL) reading outcomes. In 2021, the DBE again assessed a group of 3,239 Grade 3 and 3,367 Grade 4 learners in the same schools using very similar reading assessments.

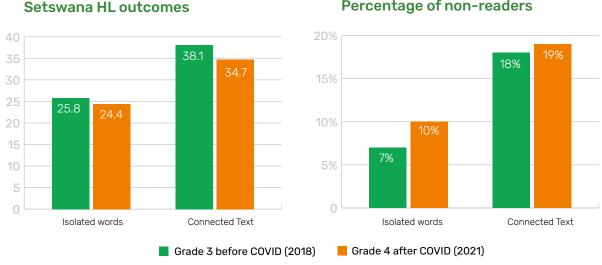
Given that the same Home Language word reading task and oral reading fluency (ORF) passage was used across the years, it is possible to compare the reading performance of the Grade 4 learners who were affected by the pandemic (Grade 4 in 2021) with the reading performance of the Grade 3 and Grade 4 learners before the pandemic (2018). It further also allows us to calculate both how far learners have fallen behind, as well as how much learning was lost in 2020 and 2021.

(Figure 1) below compares the reading outcomes of the Grade 3 learners pre-COVID-19 (in 2018) with the Grade 4 learners who were affected by the pandemic. It shows that the Grade 4 learners in 2021 read, on average, 1.4 words less in a minute than the Grade 3 learners who were in the same schools in 2018.

In the oral reading fluency task the Grade 4 learners read, on average 3.4 words less in a minute than the Grade 3 learners. This signifies that the lost schooling during 2020 and 2021 has resulted in more than a year's worth of lost learning.

(Figure 2) further shows that the percentage of non-readers, or learners who could not read a single word correctly, are higher among the Grade 4 learners in 2021 than what it was with the Grade 3 learners in 2018. Again, it is important to note that this is among learners in the same schools, and we have no reason to believe (other than the pandemic) that the Grade 4 learners in 2021 would be inherently weaker than the Grade 3 learners in 2018. In 2021, 10% of the Grade 4 learners could not read a single word correctly in the HL word reading task (where the first six words did not include more than three letters), compared to 7% of Grade 3 learners in 2018.

#### Figure 1 & 2: Comparing the reading outcomes of the pre-COVID Grade 3 learners with the post-COVID Grade 4 learners.



#### Percentage of non-readers

Ardington, C., Deliwe, C., Kotze, J., Mohohlwane, N. Taylor, S. and Wills, G. (2022). Learning losses due to the Covid-pandemic in Advisory 6 Note for the Reading Panel 2022. Available at: https://www.readingpanel.co.za/resources

# **13. CONCLUSION**

This sustainability impact evaluation of EGRS I has provided a rare opportunity to track the progress of learners (longitudinally) over nearly seven years and to examine the long-term impacts of an early grade reading intervention, three to four years after the intervention has been completed. The most consistent impacts were for learners who received the maximum dosage of the EGRS I intervention in grades 1 to 3 (i.e. those who progressed, as intended, through the three years of the intervention from 2015 to 2018).

EGRS II has confirmed the potential of the coaching implementation model to shift instructional practice and deliver learning gains, and has also led to the incorporation of electronic tablets into current programmes being implemented. However, it has unfortunately not yielded a cost-effective alternative to on-site coaching.

Evidence of the effectiveness of on-site coaching has been building over the past couple of years and this study further contributes to this evidence base.



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